FONT region at ATF2. FF scheme #2
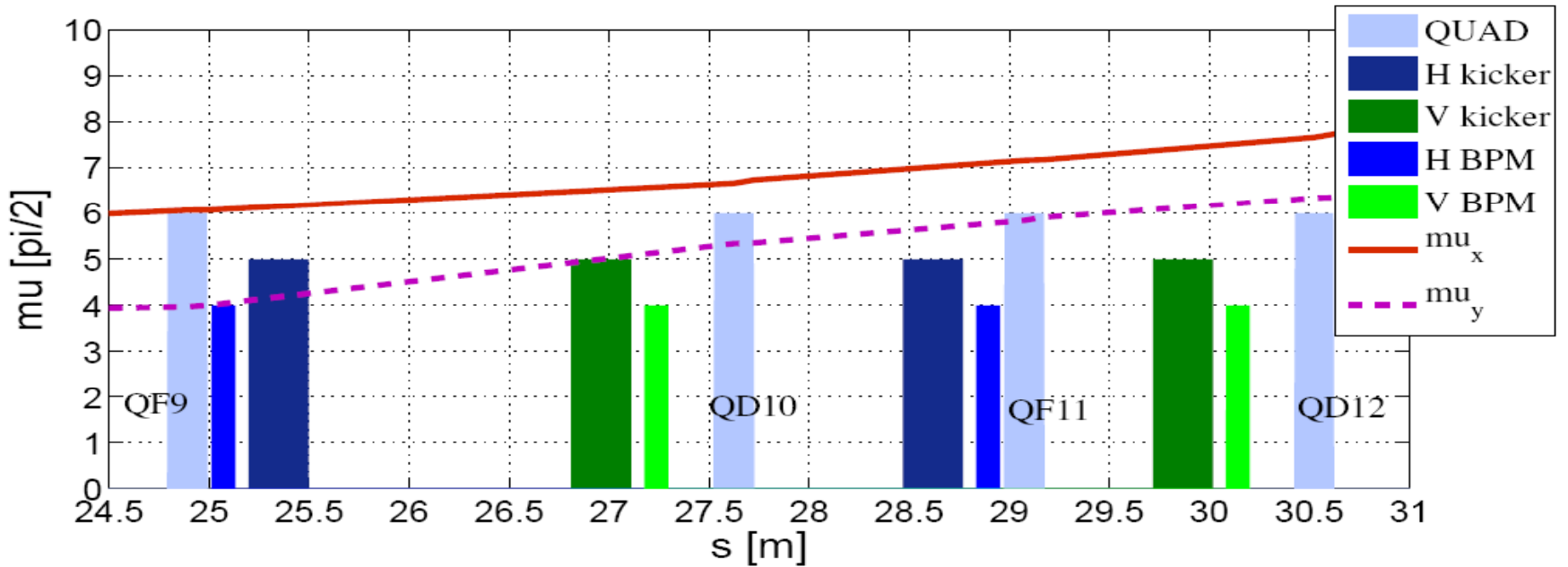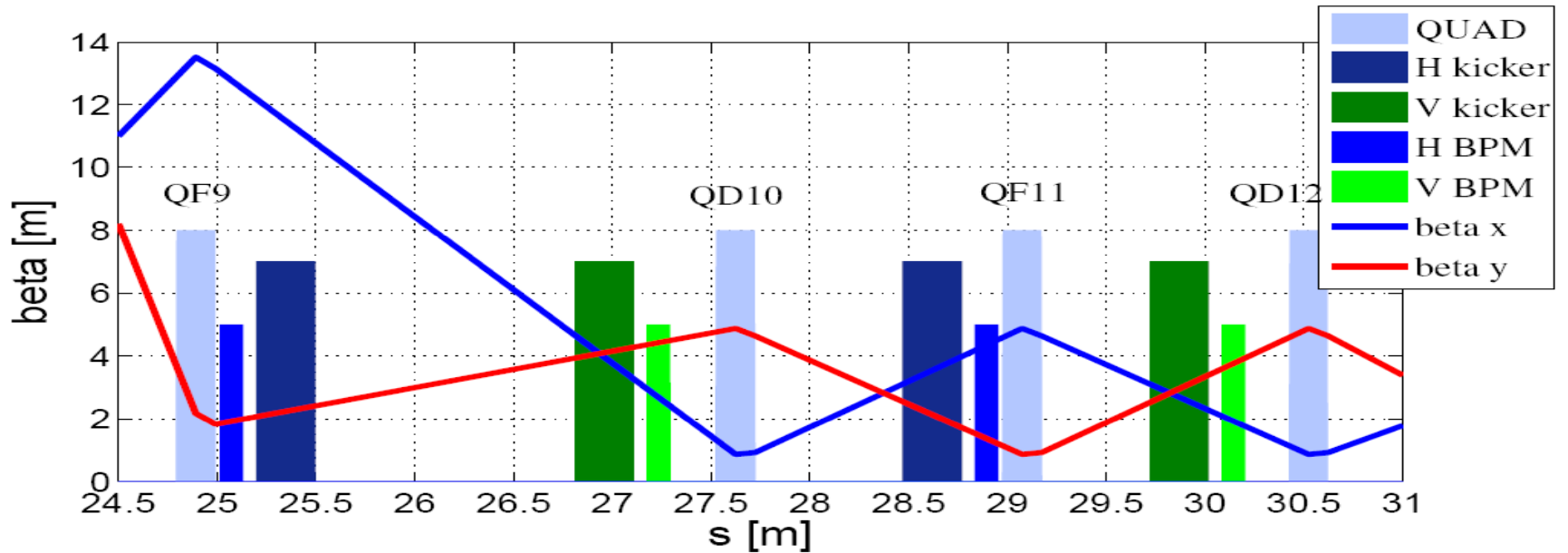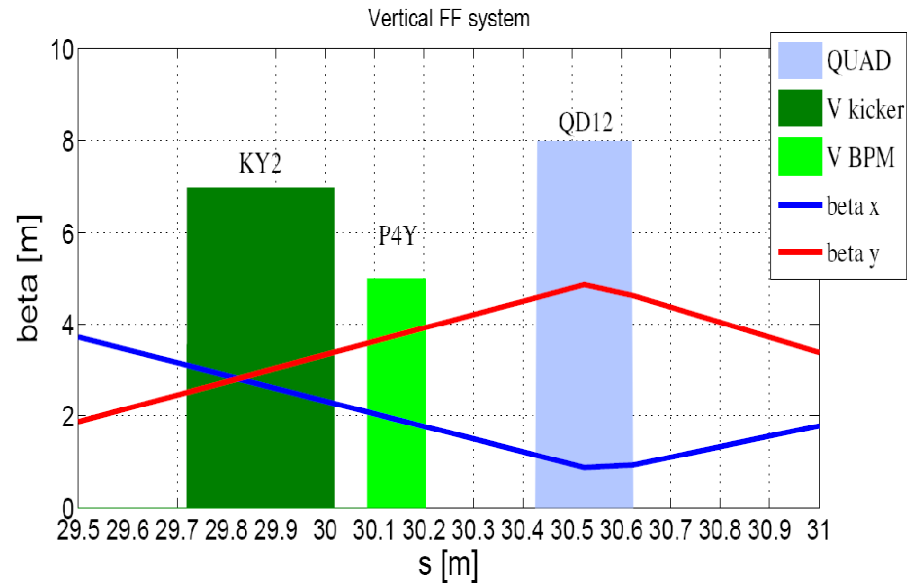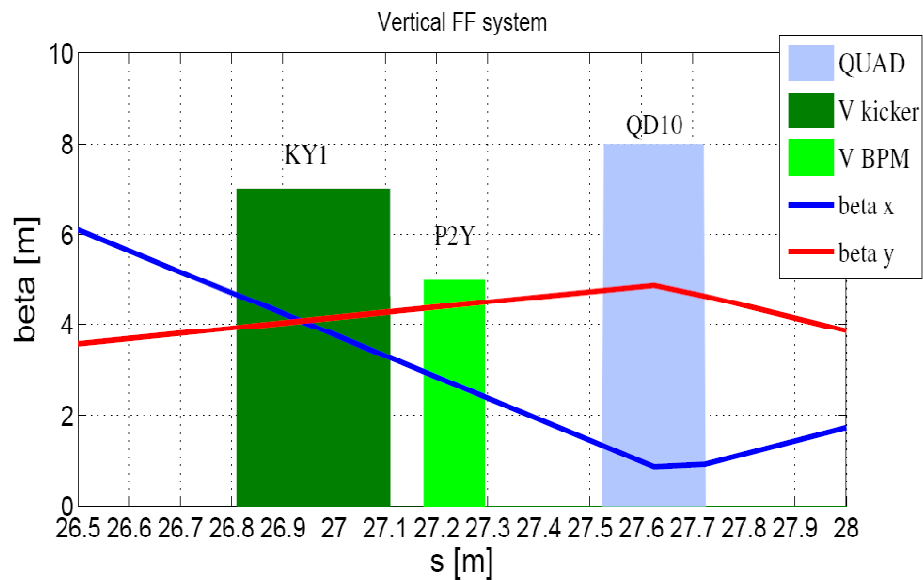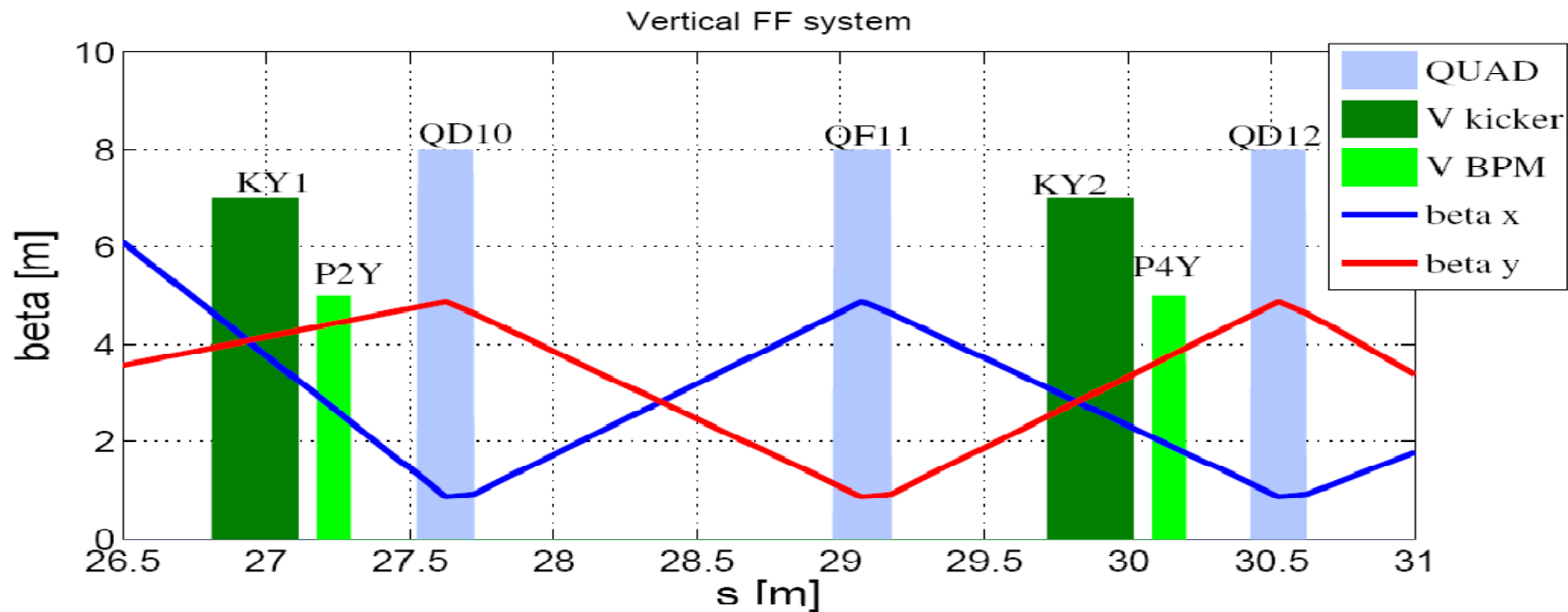
Only for y-y' correction

Position table scheme #2

Position taken at the center of the element

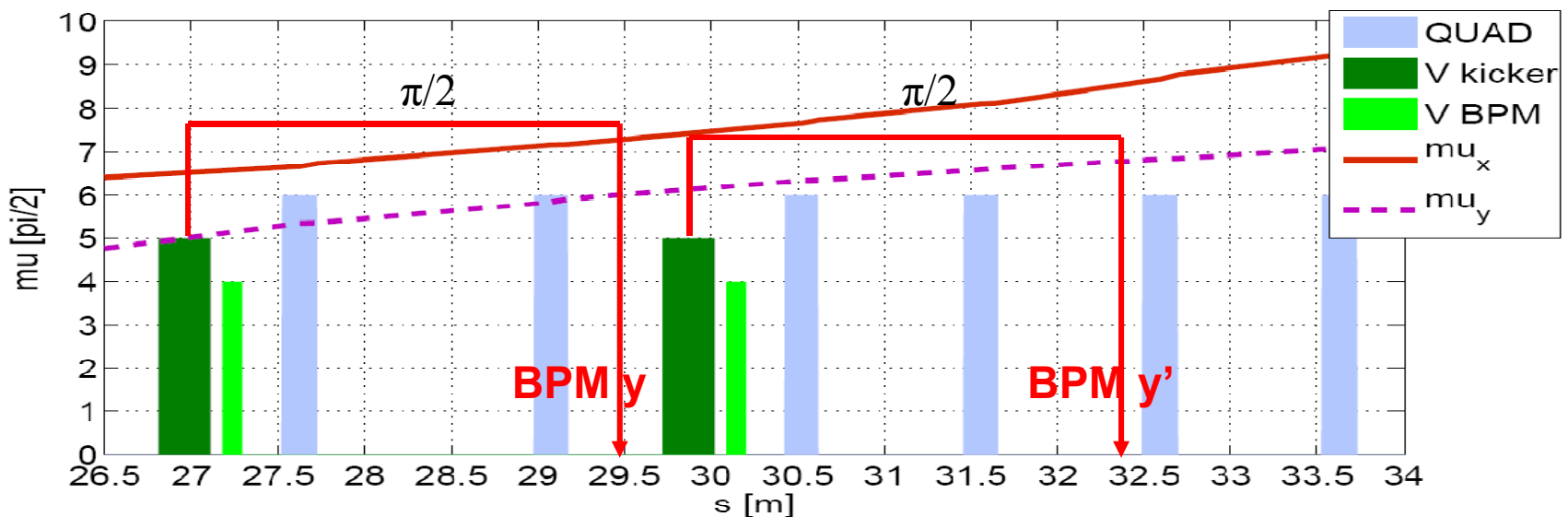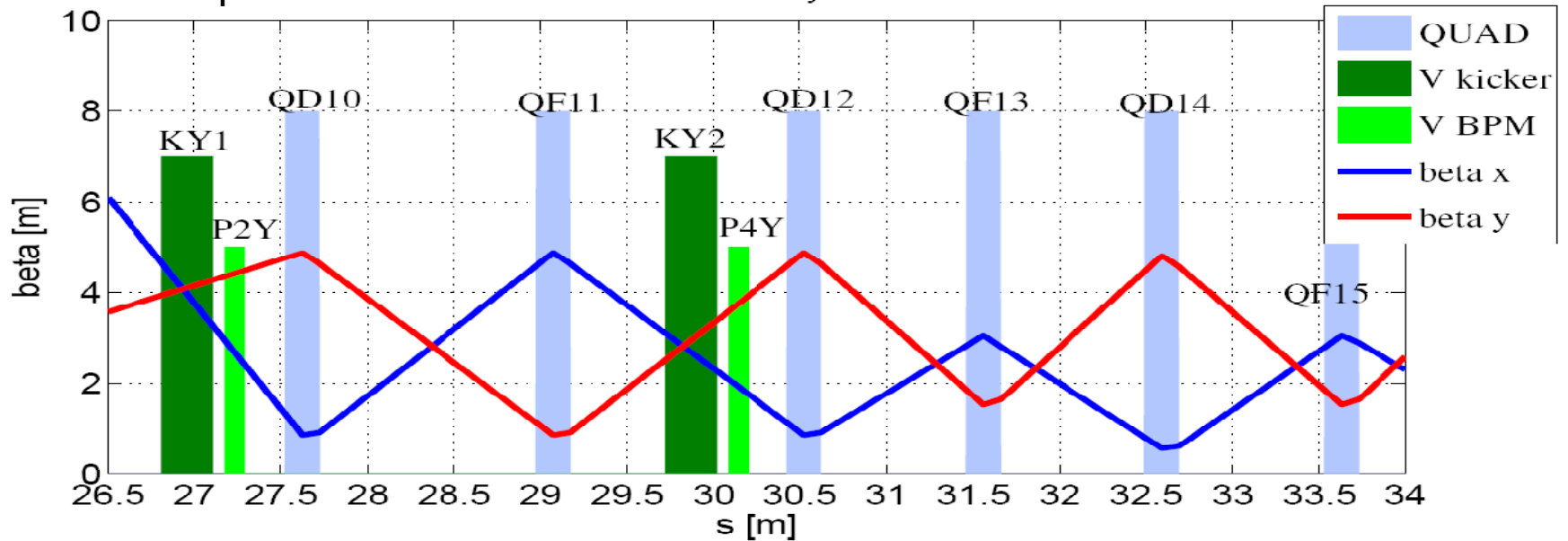| Element	s [m]
KX1 (for x correction)	25.35
P1X (H BPM)	25.07
KX2 (for x' correction)	28.62
P3X (H BPM)	28.89
KY1 (for y correction)	26.96
P2Y (V BPM)	27.23
KY2 (for y' correction)	29.87
P4Y (V BPM)	30.14

kicker length = 30 cm
BPM length = 12 cm (15 cm)

distance kicker (center)-adjacent BPM (center) = 27 cm
drift between kicker-BPM = 6 cm
drift (P2Y-QD10) = 23 cm
drift (P4Y-QD12) = 23 cm

Additional BPM positions for FB system

Time of flight kicker to BPM

Option 1

- Time of flight KY1 – BPM y (d= 2.54 m): 8.5 ns
- Time of flight KY2 – BPM y' (d= 2.43 m): 8.1 ns

Location constraints:

- Relatively high beta y (higher resolution tolerances)
- $\pi/2$ phase advance kicker-BPM
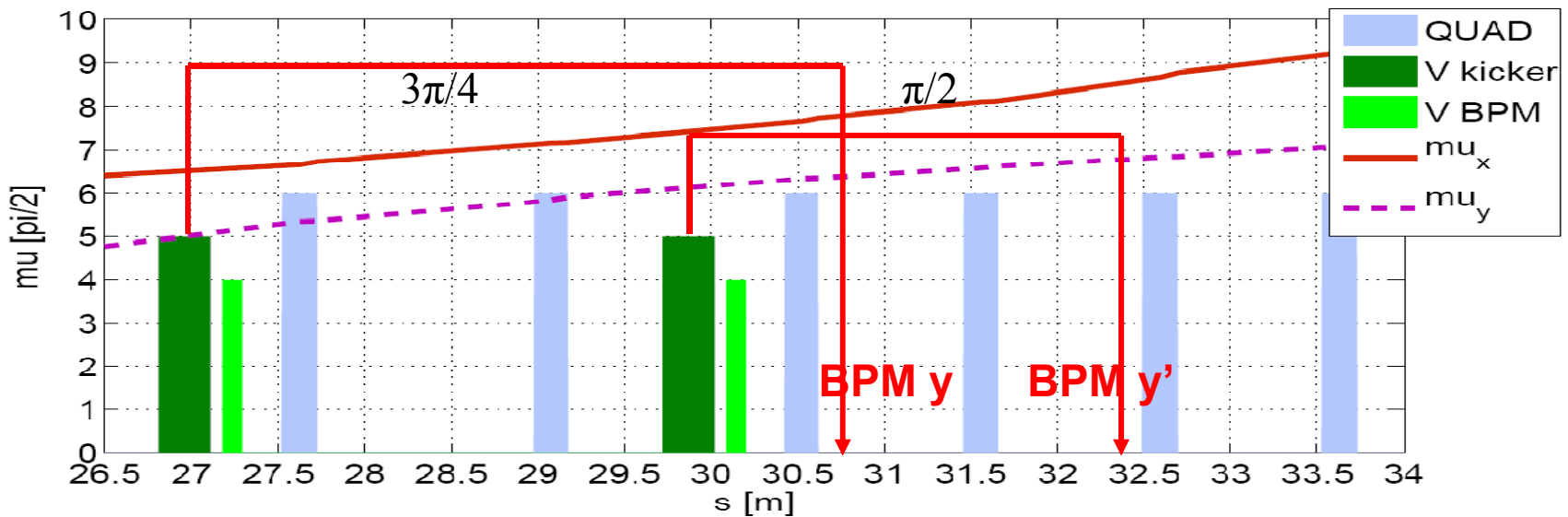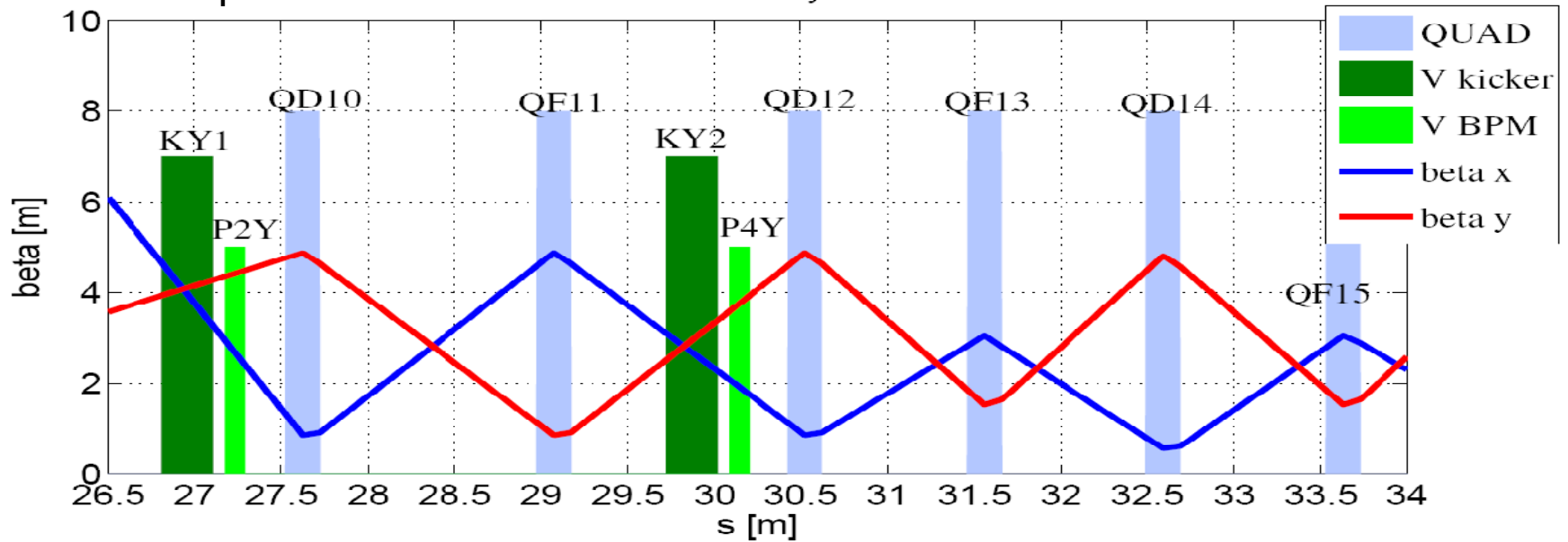- Low time flight to reduce latency

But …

Pay much more attention on the latency constraint!

Relaxed attention on the phase advance condition between kicker & BPM!

Additional BPM positions for FB system

Option 2

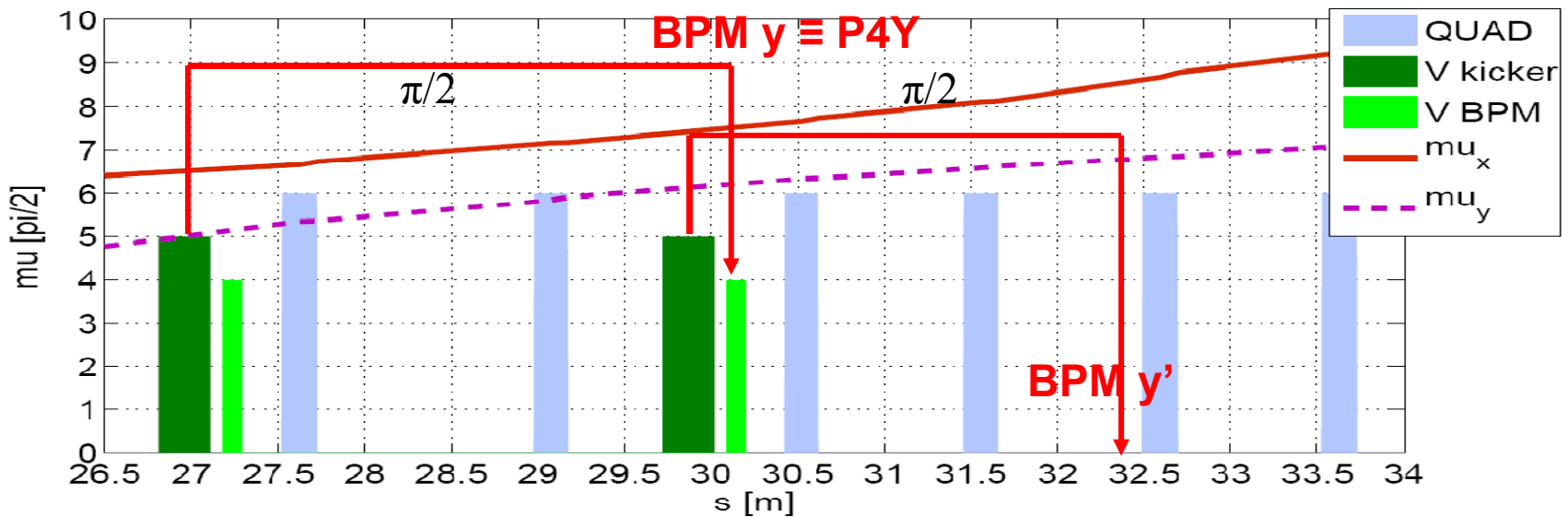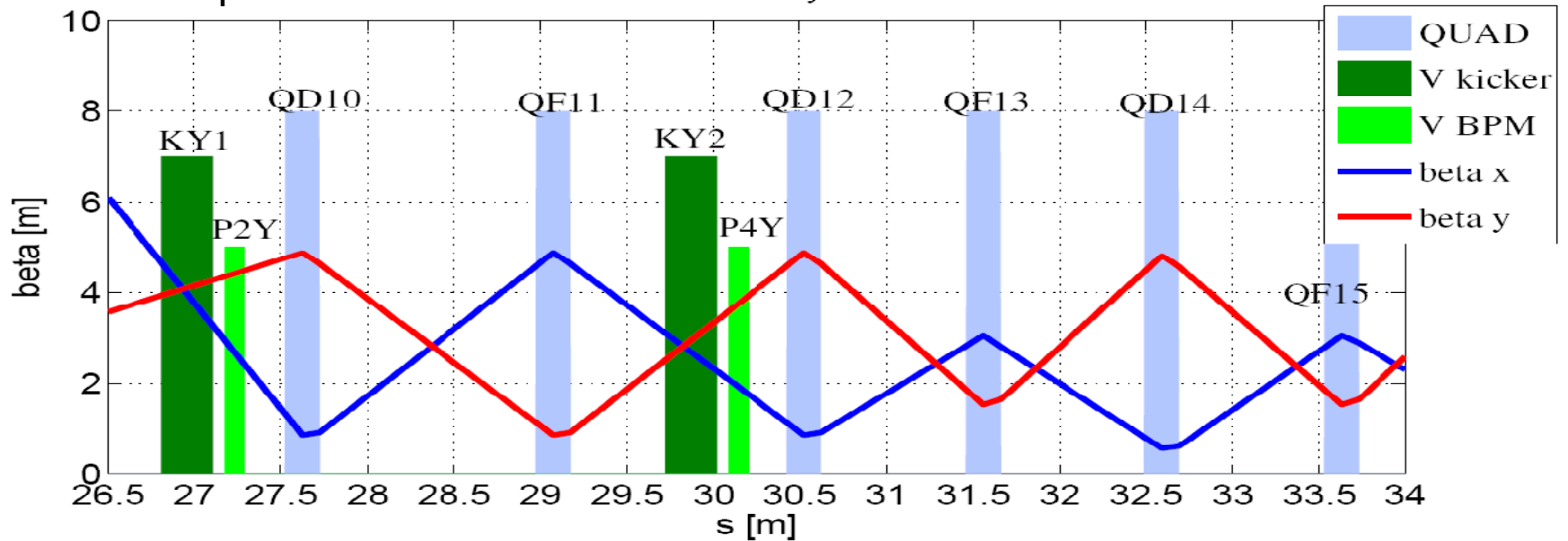Vertical FF system

Time of flight kicker to BPM

Option 2

- Time of flight KY1 – BPM y (d= 3.74 m): 12.5 ns
- Time of flight KY2 – BPM y' (d= 2.43 m): 8.1 ns

BPM y located at higher beta y than in the case of option 1

Additional BPM positions for FB system

Time of flight kicker to BPM

Option 3

- Time of flight KY1 – BPM y (d= 3.18 m): 10.6 ns
- Time of flight KY2 – BPM y' (d= 2.43 m): 8.1 ns

The second BPM for FF plays the role of the BPM y for FB

These are just some optional examples. Discuss other possible options   !!